

### (3) Amended Claims

1. (Cancelled)
2. (Cancelled)
3. (Previously amended) A method according to claim 13 or 14, further comprising the step of:
  - a) providing an expansion element in the form of a hollow profile in each joint between consecutive first and second pipe elements of the pipeline, said hollow profile being filled with a pressure-resistant fluid, and
  - b) measuring the deformation in each joint.
4. (Cancelled)
5. (Currently amended) A method according to either of claims 13 or 14, characterised in that said expansion element is divided into sections and the fluid pressure of each section ~~sections~~ is measured and individual fluid quantities are supplied to or extracted from sections by control command corresponding to the fluid pressure measured for the sections.
6. (Previously amended) A method according to claim 5, characterised in that a header piece is controlled with a front expansion element.
7. (Cancelled)
8. (Previously amended) A method according to either of claims 13 or 14, characterised in that the fluid pressure is measured in an expansion element which in cross-section is circular, oval, elliptical or round in the direction of at least one face of the pipe.

9. (Currently amended) A method according to either of claims 13 or 14, characterised in that the ratio of force exerted on pipe elements by the expansion element to force permitted for said pipe elements is calculated and monitored periodically or continuously, and when

$$\frac{K_1}{K_2} \geq 1$$

an alarm is triggered, wherein  $K_1$  = force exerted and  $K_2$  = force permitted.

10. (Previously amended) A method according to either of claims 13 or 14, characterised in that parameters are measured on pre-compression of the expansion element ~~in pressing shaft~~ and the measured values of the parameters are stored.
11. (Previously amended) A method according to either of claims 13 or 14, characterised in that calculation of values and comparing with stored values or converting into control commands take place in real time.
12. (Previously amended) A quality control method comprising: performing the steps according to claim 13 to obtain records, qualitatively or quantitatively evaluating the records and implementing quality control based on the evaluation.
13. (Currently amended) A method for determining a propulsion force that is effective in a predetermined pipe element of a pipeline assembled from a plurality of individual pipe elements during advancing said pipeline by a pressing device resting on an abutment and pushing the entire pipeline in the advance direction by a length of at least one pipe element comprising the steps of:
- a) aligning a plurality of pipe elements including said predetermined pipe element end-to-end to form a pipeline,

b) measuring a fluid pressure in an expansion element in the form of a hollow profile provided in a joint between said predetermined pipe element and a further pipe element, said hollow profile being filled with a pressure-resistant fluid,

b) c) measuring a deformation of said joint by at least three local expansion measurements,

e) d) calculating geometric data of an expansion plane of said joint from said at least three local measurements, and

d) e) determining size and eccentricity of the propulsion force for advance of the entire pipeline in relation to a neutral axis or to an advance direction from said measuring of the fluid pressure and from the geometric data of the expansion plane.

14. (Currently amended) A method for producing a pipeline comprised of a plurality of pipe elements including a first and a second pipe element in ground, comprising the steps of:

a) providing a pressing device resting on an abutment and pushing the entire pipeline in ~~the~~ an advance direction to advance the entire pipeline by a length of one pipe element,

b) providing an expansion element in the form of a hollow profile in a joint between a said first and a said second pipe element of the pipeline, said hollow profile being ~~filled~~ filled with a pressure-resistant fluid,

c) measuring a fluid pressure in said hollow profile,

d) measuring a deformation of said joint by at least three local expansion measurements,

e) calculating geometric data of an expansion plane of said joint from said at least three local measurements,

f) determining size and eccentricity of a propulsion force that is effective in said pipe element during advancing said entire pipeline comprised of said plurality of pipe elements, said size and eccentricity being determined in relation to a neutral axis or to an advance direction from said measuring of the fluid pressure and from the geometric data of the expansion plane.

15. (Previously presented) A method according to claim 14, comprising the step of: comparing said size and eccentricity of the propulsion force with stored standard values to avoid a risk of damage of pipe elements.